ISTAR-KR Matrix: Mathematics
OSEP Outcome 2

Core Standard 1: Number Sense						
Counting and Quantity						
0	**1**	**2**	**3**	**4**	**5**	
No Evidence	**Demonstrates awareness of the presence of objects**	**Identifies more**	**Uses numbers to compare**	**Names and orders quantities**	**Describes relationships between numbers and quantity**	**Do Not Rate this box.** Skills below are what is to be learned next.
	Looks at/observes hanging mobile or object held in front of face	*Demonstrates awareness of the presence of objects*	*Identifies more*	*Uses numbers to compare*	*Names and orders quantities*	*Describes relationships between numbers and quantity*
	Follows a moving or sound of an object	*Indicates desire for "more"*	*Uses whole numbers up to 5 to describe objects and experiences*	*Identifies the next number in a series of numbers*	*Counts a number of objects up to 20*	*Counts to 100*
	Shows displeasure when a desirable object is removed	*Identifies which amount is "more" (e.g. visually, tactilely, or auditorally)*	*Touches or points to each object in a sequence only once*	*Identifies "first" and "last"*	*Recognizes, represents, and names a number of objects up to 10*	*Recognizes whole numbers to 100*
	Shows pleasure when a desirable object is received	*Gives more when asked*	*Identifies when objects are the same number, even if arrangement is changed*	*Gives "the rest" when asked*	*Uses concepts of "most" and "least"*	*Writes numbers up to 100*
	Attends to the face of a person when held	*Identifies which collection is "more" (e.g. visually, tactilely, or auditorally)*	*Identifies when a number of objects is "less" (e.g. visually, tactilely, or auditorally)*	*Uses drawings to represent quantity and numbers*	*Uses concepts of "all" "none" "some"*	*Counts and groups objects in ones and tens*
				Counts a number of objects up to 10	*Orders a number of objects up to 10.*	*Identifies numbers up to 100 in various combinations of ones and tens*
						Names the number that is one more or one less than any number less than 100
						Compares whole numbers to 10 and arranges them in numerical order

Computation

0	1	2	3	4	5	
No Evidence	Manipulates objects for a purpose	Matches objects and sets	Makes a set of objects smaller or larger	Follows models of addition or subtraction situations	Describes the application of addition and subtraction situations	Do Not Rate this box. Skills below are what is to be learned next.
	Pulls or breaks apart food	*Manipulates objects for a purpose*	*Matches objects and sets*	*Makes a set of objects smaller or larger*	*Follows models of addition or subtraction situations*	*Describes the application of addition and subtraction situations*
	Lines up objects	*Puts pairs together*	*Makes a collection of items larger by adding when asked*	*Creates a collection equal to objects in a collection already constructed*	*Finds the number that is one more than any whole number up to 10*	*Shows the meaning of addition using objects*
	Attends to a new object in a group of objects	*Matches sets of objects one-to-one*	*Makes collections of items smaller by taking items away when asked*	*Describes addition situations for numbers less than 5*	*Finds the number that is one less than any whole number up to 10*	*Shows the meaning of subtraction using objects*
	Puts an object in mouth to explore	*Uses the term "same"*	*Identifies "one more" "one less"*	*Describes subtraction situations for numbers less than 5*	*Compares sets up to 10 objects and determines if they are equal*	*Demonstrates mastery of addition facts for totals up to 10*
			Describes addition and subtractions situations for numbers less than 3	*Uses the term "half"*	*Models addition/subtraction by joining sets of objects (for any two sets with fewer than 10 objects when joined)*	*Demonstrates mastery of addition facts for totals from 11-20*
				Uses the term "whole" when combining a whole quantity of something	*Divides sets of 10 or fewer objects into equal groups*	*Demonstrates mastery of subtraction facts with totals up to 10*
					Makes precise calculations and checks validity of results in context of problem	*Demonstrates mastery of subtraction facts with totals from 11-20*
						Uses symbols "+" and "-"
						Uses symbol "="
						Uses zero in addition problems
						Uses zero in subtraction problems
						Writes and solves number sentences from problem situations involving addition and subtraction

Core Standard 2: Geometry and Measurement

Time

0	1	2	3	4	5	
No Evidence	**Anticipates a routine**	**Uses vocabulary to identify events in a routine**	**Sequences events**	**Uses measuring vocabulary for time**	**Uses measuring units for time**	**Do Not Rate this box.** Skills below are what is to be learned next.
	Cooperates with routines	*Anticipates a routine*	*Uses vocabulary to identify events in a routine*	*Sequences events*	*Uses measuring vocabulary for time*	*Uses measuring units for time*
	Anticipates an event in a sequence during daily activities	*Responds to now, next, done.*	*Independently completes an activity that requires 3 things be done in sequence*	*Uses concepts of morning, afternoon, night, today, tomorrow*	*Uses the terms week, month, year*	*Tells time to the nearest half hour and relates time to events*
	Prepares for something anticipated	*Responds to "one more…" (time, book)*	*Tells 3 events in chronological order*	*Uses concepts of today, yesterday and tomorrow*	*Uses the terms, minute, hour, day*	
	Associates familiar events with concrete objects(e.g. blanket for bedtime)	*Uses a word or shows an object that represents bedtime or mealtime*	*Differentiates past and future events*	*Explains how something may change over time*		
	Follows along with a simple routine		*Identifies first and last events*			

Location – Outcome 2.12

0	1	2	3	4	5	
No Evidence	**Demonstrates an awareness of location of objects**	**Identifies location**	**Follows directions involving location**	**Communicates with location words**	**Uses prepositions to describe location**	**Do Not Rate this box.** Skills below are what is to be learned next.
	Tracks movement	*Demonstrates an awareness of location of objects*	*Identifies location*	*Follows directions involving location*	*Communicates with location words*	*Uses prepositions to describe location*
	Responds to objects in the environment	*Identifies where he/she is currently located*	*Follows instructions to put an object in a different place (room, space)*	*Uses "beside" or "next to"*	*Uses prepositions – inside, outside, between, above, below*	*Identifies geometric shapes and structures in the environment and specifies location*
	Looks or feels for an object or sound that is hidden	*Locates a hidden object or sound*	*Follows instructions to place an object in, out, on or off of something*	*Answers "where is…" questions*	*Compares and sorts objects by position*	
	Puts things in and out of other things	*Responds to "here" and "there"*	*Follows directions involving 5 body parts*	*Asks "where is…" questions*		
	Identifies one body part	*Identifies the location of 3 body parts*				

Length, Capacity, Weight, Temperature – Outcome 2.13						
0	**1**	**2**	**3**	**4**	**5**	
No Evidence	**Explores measurement attributes**	**Distinguishes between big and little, hot and cold**	**Differentiates gradients of size and weight**	**Uses common measuring tools in correct context**	**Makes direct measurement comparisons**	**Do Not Rate this box.** Skills below are what is to be learned next.
	Pours substances in and out of containers	*Explores measurement attributes*	*Distinguishes between big and little, hot and cold*	*Differentiates gradients of size and weight*	*Uses common measuring tools in correct context*	*Makes direct measurement comparisons*
	Responds to hot and cold	*Distinguishes between big and little*	*Orders 3 objects by size*	*Uses a cup to act out a measurement of capacity*	*Makes direct comparisons of length*	*Estimates and measures length to the nearest inch*
	Responds to "all done", "want more"	*Makes choices based on size*	*Assembles a set of nesting objects*	*Uses a ruler to act out a measurement of length or height*	*Makes direct comparisons of capacity*	*Measures and estimates length to the nearest centimeter*
	Responds to "one more…" (e.g. time, book)	*Communicates feelings of hot and cold*	*Recognizes which object is lighter/heavier*	*Uses a scale to act out a measurement of weight*	*Makes direct comparisons of weight*	
		Communicates size of things relative to self	*Recognizes which object is warmer/cooler*	*Uses a thermometer to act out a measurement of temperature*	*Makes direct comparisons of temperature*	
		Uses descriptive word or gesture to express amount or size	*Recognizes which object can hold more*			
			Recognizes which object is shorter, longer or taller			

Sorting and Classifying Objects						
0	1	2	3	4	5	
No Evidence	Explores attributes (e.g. shape, size, color)	Matches same attributes	Matches opposites	Sorts and patterns by one attribute	Sorts and patterns by more than one attribute	Do Not Rate this box. Skills below are what is to be learned next.
	Attends to visual, auditory, tactile patterns	*Explores attributes (e.g. shape, size, color)*	*Matches same attributes*	*Matches opposites*	*Sorts and patterns by one attribute*	*Sorts and patterns by more than one attribute*
	Shows interest in something out of place, (e.g. finding a small object on the carpet)	*Matches squares, circles*	*Puts together pairs of pictures of opposites*	*Names groups of objects according to the common attribute*	*Groups familiar items by classification and function.*	*Identifies and describes triangles*
	Uses a shape toy to explore basic shapes	*Matches rectangles, triangles*	*Names the opposite of a given quality*	*Identifies geometric shapes (e.g. circles, triangles, squares, rectangles, cubes)*	*Gives reasons for sorting of objects*	*Identifies and describes rectangles*
	Puts smaller objects into larger holes, slots or depressions	*Identifies when object are the same*	*Identifies objects that do not belong to a particular group*	*Puts objects into groups with the similar attribute*	*Identifies categories of objects in pictures*	*Identifies and describes squares*
				Identify and sort common words in basic categories	*Sorts and classifies objects by size and shape*	*Identifies and describes circles*
				Copies simple patterns with numbers and shapes	*Compare and sort common objects by position, roundness and number of vertices*	*Compares and sorts objects by shape*
				Identifies patterns	*Creates patterns of more than one attribute.*	*Draws or models shapes*
				Predicts what comes next when shown a simple AB pattern of objects	*Reproduces patterns of sounds and movement*	*Identifies triangles, rectangles, squares and circles as the faces of three-dimensional objects*
				Compares and sorts by roundness		
				Compares and sorts by number of corners		